

The Honorable Peter Teets

National Space Symposium Corporate Dinner Address

8 April 2003

Introduction by Dave Taylor (Pres/CEO of Ball Aerospace & Technologies Corp)

- Dave, thank you for that more than generous introduction.
- Good evening to all of you!
- I am genuinely pleased to be here tonight as your guest at this corporate partnership forum.
- I would like to take a moment to congratulate [General] Lance Lord and (Lt. Gen] Brian Arnold, and the entire Milstar launch team in Florida fro their fantastic accomplishment today.
- Also today, I had the good fortune to visit the very talented people at Army Space Command. I am enormously pleased with what they told me about their important contributions in communications, blue force tracking, and space control. I wish them well.
- I understand last year in this same forum, David Thompson, CEO of Spectrum Astro, gave an interesting talk about his views of the National Reconnaissance Office.
- Now, through undisclosed sources and methods, I got wind that this group was going to invite David back for a re-run, so I quickly volunteered to be your speaker tonight!
- Frankly, I did have the opportunity to read David's speech. While it may have been a bit uncomplimentary, I read it in the spirit that there may be a grain of truth there. This is a great compliment to the NRO.
- We spent some time at a recent CEO conference talking through some of his points. We always look for ways to improve our operations because we are certainly a learning organization.
- I am proud and pleased to be the Director of the NRO and believe we can continue to do our jobs better as we proceed into the future,
- Before I launch in to my theme for tonight's talk, I'd like to take a moment to recognize that we as a nation find ourselves engaged in combat.
- I am pleased to say that our national security space assets are performing really well, and our support to combat operations and intelligence collection is better that it ever has been. National security space assets are giving our forces a significant war fighting advantage.

- It is appropriate for us tonight to recognize the enormous sacrifice our fighting forces are making - and they deserve our very best efforts and support in every way possible.

- The theme of this conference is transforming the future. Transformation has been a buzzword around Washington for a couple of years now, but what is it, exactly?

- You could probably ask 10 different defense analysts what "transformation" means, and get 13 different answers.

- It may not be easy to define, but it calls to mind what Justice Oliver Wendell Holmes once said when asked to define pornography:

 - o He replied "I can't define it, but I'll know it when I see it."

- Tonight, I'd like to talk to you about transformation, and our National Security Space efforts to achieve it in the future.

- But first I'd like to reflect a little bit on the past, because, in the spirit of Oliver Wendell Holmes, if we know transformation when we see it, it's because we've seen it before.

- It was not too long ago - recent enough that at least a few of us in this room can remember - that our nation faced a new and terrifying threat against our very homeland.

- In the 1950s, the world was a fairly frightening place.

- We were in the initial stages of the Cold War.

- We knew the Soviets had the hydrogen bomb - they tested their first one 50 years ago this year.

- We also knew, thanks to a small but very transformational object called Sputnik, that they had the means to deliver these bombs upon our homeland.

- This was a new and very frightening possibility.

- We tried desperately to assess their level of capability with secret aircraft reconnaissance flights over Soviet territory, but, after Gary Powers' shoot down in 1960, this means was denied us.

- Fortunately, an alternate solution was already in the works.

- It would operate in the new medium of space.

- It would transform the national security environment of the day.

- It was called Corona.

- The NRO's first satellite program, Corona truly shocked the world of reconnaissance, and, with the completion of the second successful Corona mission in December of 1960, the Corona program imaged 3.8 million square miles of denied area, more than the coverage provided by all 24 U-2 missions conducted between 1956 and 1960.
- By June 1964, Corona had photographed all known Soviet ICBM sites.
- Corona regained for us our strategic advantage over the Soviet Union, eliminating the need for sensitive aerial overflights.
- But most importantly, Corona transformed the national security landscape, demonstrating that satellites could push beyond the limits of what we could achieve with traditional means.
- Other examples soon followed.
- The NRO's early SIGINT satellite program, known as Galactic Background Experiment, or GRAB, provided an unprecedented means to map Soviet air defense radars and other systems.
- Also, the Air Force developed and deployed its Missile Defense Alarm System, or MIDAS, the forerunner of today's Defense Support Program missile warning constellation.
- These satellites, capable of detecting ICBM launches, further denied the Soviet Union the element of surprise.
- Collectively, these first National Security Space efforts turned the tide of the early Cold War.

· Let me now turn to another, more recent, example of transformation from space: the Global Positioning System

- Who could have imagined, in the early 1980s when GPS was first deployed, the impact it would have on our society that it has today.
- Its users span from fighter aircraft over Iraq to families hiking here in the Colorado Rockies.
- It provides the foundation for economic transactions across the globe.
- And it forms the bedrock of the info-centric precision warfare our entire military wages today.
- Precision navigation and timing from space is now so integral to societal functions that GPS has aspiring imitators in the form of the partially-deployed Russian GLONASS system and the proposed European Galileo System
- What started as a military navigation aid is now an essential part of our society's infrastructure.

- Now that's transformation!
- I'd like to add, we're going to continue to improve this vital capability in the years to come.
- Just last month we launched successfully a GPS satellite and will launch another later this year. We'll then move into the newer versions with a plan in place to progressively improve and add capability to our GPS system.
- We have been working to formulate a smart program for GPSIII. A challenge for industry is to find meaningful ways to bring ideas forward to reduce some of our cycle time.
- When first briefed to me, the plan for a GPSIII program was going to require nine years of development. Frankly, that is too long.
- We can do better than that. I know our industry partners can do better.
- We in government are partially responsible. I am anxious to get input and ideas from industry on how we can significantly reduce cycle time for the development of these important national security programs.
- In many ways, our nation's efforts in space have always been about transformation.
- And, in my opinion, that legacy will not change.
- In fact, I believe, in the increasingly info-centric environment in which we find ourselves, our space capabilities will be even more critical to future transformation in the national security arena.
- The world we find ourselves in today, in the post 9-11 environment, bears many similarities to the world of new threat and dangers we found ourselves in back in the mid-1950s.
- As we did with Soviet ICBMs back then, we have, in the threat of terrorism, a new form of danger against our homeland.
- And again, the extreme form of that danger are weapons of mass destruction.
- There is also that same feeling of uncertainty, even fear, at not knowing the extent of the threat, or what can be done, in the near term, to best defend against it.
- Now I recognize that this is an unclassified event, so I will not discuss any specific activity or program at the NRO.
- But I will say, as I have on numerous occasions, that there is no shortage of good new ideas at the NRO, and we are hard at work there with a wonderfully talented team. I know that with the help of the industrial base, we will continue to be one team, revolutionizing global reconnaissance.

· There are, however, two particular unclassified efforts we're pursuing across the National Security Space community that, I believe, have the transformational capability to address these new threats.

· One key effort with huge potential is Space-Based Radar.

· We envision SBR will act as the forward eyes for strike platforms and other Intelligence, Surveillance, and Reconnaissance assets by detecting surface movers (Ground Moving Target Indication) and rapidly imaging stationary targets (Synthetic Aperture Radar).

· With a day/night, all-weather ability to look deep into denied territory, multiple theaters, and broad ocean areas, we hope to observe and predict adversary activities before, during, and after conflict, in ways we could not before.

· And because of its day/night all-weather capability, along with its ability to operate over denied areas, SBR offers promise in achieving persistent collection.

· SBR's potential for more precise and timely terrain mapping will yield major benefits for mission planning and rehearsal, particularly for Special Operations forces or other forces that may be inserted behind enemy lines or borders.

· Another area ripe for transformation - with space leading the way - is communications.

· The demand for communications bandwidth and access across all sectors of our society continues to increase geometrically.

· Now, the commercial sector can take some comfort from the fact that fiber-optic technology is able to absorb most of the impact of accelerating information throughput requirements.

· But the US military doesn't have that luxury.

· By their very nature, our armed forces operate in exactly those places where fiber-optic cable networks are not: not only in remote locations on land, but also on the seas, in the skies, and in space.

· And it is in those places that our requirements are growing by leaps and bounds.

· Our vision is to remove both bandwidth and access as constraints to the warfighter.

· Imagine you're in a combat environment and you need to download intelligence, communicate with others, or designate targets - all within decision cycles measured in seconds, and with lives at stake.

- We simply cannot let bandwidth and access constraints be the Achilles heel of our armed forces in the decades to come.

- That's why our efforts to transform communications are so critical.

- Admiral Rand Fisher, director of our Transformational Communications Office, and Christine Anderson are leading the charge to develop the architecture we'll need to meet these huge, onrushing bandwidth requirements.

- As Admiral Fisher likes to make clear, our efforts are not about satellites, and they're not about terminals - they're about creating a whole new infrastructure to support future warfighting.

- We're going to exploit known technologies - such as fiber optics, internet protocol networks, and packeted data switching - in new ways to vastly improve our information dissemination capabilities.

- Let me close my remarks this evening by saying that the importance of our nation's space capabilities continues to increase, and at a pace commensurate with our increasing warfighting emphasis on network-centric operations.

- In the late 1950s, it was a rare combination of new threats, events, and circumstances that encouraged unprecedented innovation in defense and intelligence technologies.

- The results - realization of highly capable space systems to meet critical national security needs - were beyond expectation.

- We are, again, at the brink of another national need for transformation via space capabilities, in the face of a new threat to our homeland.

- Through innovation, integration, and perspiration, we'll deliver that new potential.

- Thank you.